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REMARKS

The Office Action of September 17, 2008, and the references cited therein have been carefully considered.

In this response, claim 1 has been amended to correct an obvious informality by cancelling the words "is assisted", and to even more clearly and particularly defining the present invention by incorporating the limitation of claim 3, which has been canceled. Additionally, claims 8-11 have been cancelled in order to advance the prosecution of this application.

In view of the amendment to claim 1 to incorporate the limitation of claim 3, which has been cancelled, it is submitted that the rejection of claims 1, 2 and 6 under 35 U.S.C. §102(b) as being anticipated by the publication to Kaufmann et al. is moot and need not be further discussed, and that the applicable basic rejection should be under 35 U.S.C. §103(a) based on the Kaufmann et al. publication. Reconsideration of the claims as amended over this latter ground of rejection is respectfully requested.

The present invention as defined in method claim 1 is directed to a method of monitoring the condition of a vehicle driver while operating an automatic steering assist arrangement. More specifically, the present invention is directed to a method of monitoring the activity of the driver and warning the driver if conditions indicate the driver is not directly operating the system, e.g., the driver has fallen asleep or is not paying attention. In general, the method initially includes the usual method steps for such a steering assist system, wherein the position of a vehicle in a lane is detected and monitored, the direction of travel is determined or calculated, the actual position in the lane is compared with the calculated or determined direction of travel, and the driver is assisted, e.g., by adjusting the steering wheel, in maintaining position in the lane.

These generally claimed method steps recited in claim 1 are similar to those disclosed by Kaufmann et al. However, according to the present invention, a warning signal for the driver is generated or triggered if the calculated direction of travel exactly matches the actual position in the lane over a pre-specified period of time, i.e., if the

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vehicle does not deviate from the calculated or desired direction over a predetermined minimum time period, and stays precisely in the lane or along the desired path. In other words, a warning is generated when there is no danger the vehicle will leave the lane. In such case, where the vehicle stays precisely in its position in the lane for the predetermined period of time, it is assumed the driver has removed his hands from the steering wheel or is no longer actively steering the vehicle, and the task of steering the vehicle is taken over by the system. Therefore, the warning signal is generated to induce the driver to resume control of steering. There is no disclosure in the Kaufmann et al. publication of generating a warning signal to alert a driver to resume control of steering of a vehicle when there is no danger of the vehicle leaving its lane of travel.

However, to even more clearly define the invention over the Kaufmann et al. publication, as indicated above, claim 1 has been amended to include the limitation of original claim 3. Thus, amended independent claim 1 now recites that a test signal, which depends on the driving situation, is added to the calculated direction of travel, and a warning signal is emitted when the vehicle follows the test signal. That is, if the vehicle follows the test signal, it means the vehicle will go in an undesired direction, since the test signal is not being counteracted by the driver, who can be presumed to not be actively steering the vehicle. Again, the warning signal is emitted to warn the driver that more attention or activity is required on the part of the driver, not due to the vehicle leaving the desired path or lane, as is the normal case in such steering assist methods and systems.

The publication to Kaufmann et al. simply discloses a vehicle lane tracking or steering system, which generates a warning signal if the vehicle approaches a lane marking. That is, a warning signal is generated or triggered only if there is a danger that the vehicle might leave the driving lane or when the system is switching from a semi-automatic or helper mode to an automatic or autonomous mode. However, there is no disclosure or even any suggestion of providing a warning signal if conditions indicate the driver is not in control of vehicle steering as is the case according to the present invention. Moreover, there is clearly no disclosure or suggestion in Kaufmann et al. of

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emitting a warning signal if, in response to the addition of a test signal to the calculated direction of travel, the vehicle follows the test signal.

In rejecting claim 3, the Examiner admits that Kaufmann et al. does not disclose the claimed test signal. However, the Examiner contends that since Kaufmann et al. discloses torque nudging of the steering wheel to determine the alertness of the driver, the claimed steps of method regarding application of the test signal are obvious and matters of design choice. This conclusion is respectfully traversed.

It is respectfully submitted that while the torque nudging method of Kaufmann et al. and the method according to the present invention may both be for the purpose of determining driver alertness, the steps involved are entirely different. According to Kaufmann et al., a torque nudge is applied to the steering wheel, and the alertness of the driver is determined by a pressure sensor coupled to the steering wheel, which causes a warning signal. On the other hand, according to the present invention, a test signal is added to the calculated direction, and a warning signal is emitted if the vehicle follows the test signal direction rather than the desired direction. No pressure sensor is involved in the present invention, and no determination of whether the vehicle follows a test signal is involved in the method of Kaufmann et al. Accordingly, for the above-stated reasons, it is submitted that amended independent claim 1, and claims 2, 6 and 7 dependent thereon, are allowable over Kaufmann et al. under 35 U.S.C. 103(a).

Reconsideration of the rejection of claims 4 and 5 under 35 U.S.C. §103(a) as being unpatentable over Kaufmann et al. in view of the patent to Kawazoe et al. is respectfully requested. In this ground of rejection, Kamazoe et al. is cited in an attempt to show it is known in the art to control the steering wheel in the manner recited in these claims. However, Kamazoe et al. does not overcome the basic deficiencies of Kaufmann et al. as discussed above with regard to claim 1, from which these claims depend. Accordingly, it is submitted that claims 4 and 5 are allowable over the cited combination of references for at least the same reasons as claim 1.

In view of the above amendments and for the above-stated reasons, it is submitted that each of pending claims 1, 2 and 4-7 is allowable over the art of record

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and is in condition for allowance. Therefore, the allowance of all pending claims and passage of this application to issue are respectfully requested.

However, if the Examiner is of the opinion that the prosecution of this application would be advanced by a personal interview, he is invited to telephone undersigned counsel to arrange for such an interview.

To the extent necessary during prosecution of the present application, Applicants hereby request any required extension of time not otherwise requested and hereby authorize the Commissioner to charge any fee not expressly withheld, including fees for application processing, extension, extra claims, and statutory disclosure, and especially any fees necessary to maintain pendency, including issue and publication fees, to Deposit Account No. 06-1135.

Respectfully submitted,

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